

CURRENT LINE

DAR STATEWIDE PROJECT QUARTERLY INFORMATION NEWSLETTER

VOLUME 1, NUMBER 4, October 1997

SPORTFISH RESTORATION \$\$\$

Did you know that whenever you buy fishing gear or purchase fuel for your boat, some of that money comes right back to Hawaii? In this way, you as fishermen are helping to finance a number of fisheries programs in Hawaii such as the Fish Aggregation Devices (FADs), artificial reefs, freshwater sportfish hatching and stocking, aquatic education programs, and others --- even part of this newsletter is financed by these funds! This support is in addition to funds provided to the Division of Aquatic Resources by the state legislature.

So how does Hawaii get this money? In 1950 the U.S. Congress passed the Federal Aid in Sport Fish Restoration Act (Dingell-Johnson Act), which created a 10% excise tax on certain fishing equipment. This money is distributed to states to **improve sport fisheries**. Based on the success of the program, and with the support of conservation and angling groups, boater groups, and manufacturers of boats and tackle, the Act was amended in 1984 with the Wallop-Breaux Amendment to increase the variety of products to which the tax applied. Additional revenue for boating and fishing programs is generated by excise taxes added on fish finders and trolling motors, duties on imported fishing tackle, pleasure boats and yachts, and motorboat fuel taxes.

Funds are apportioned to participating fish and wildlife agencies on an annual basis according to a formula based on the **total number of sport fishing licensees** (60%) and total area (40%) of each state as it compares to all of the states. DAR currently receives about \$2 million (equivalent to 1% of the total apportioned) each year for Sport Fish Restora-

tion projects which include the following:

- Fish Aggregation Device Systems
- Artificial Reefs
- Bottomfish Resource Assessment
- Public Fishing Areas (Nuuanu, Wahiawa, Kokee, Waiakea)
- Native Freshwater Ecosystems Research and Surveys
- Main Hawaiian Islands Marine Resources Investigation
- Stock Enhancement of Marine Fish in the State of Hawaii

AND VARIOUS OTHER PROJECTS!

In order to qualify for the use of federal funding for such projects, these projects must be for finned-fishes and must have a **significant benefit to recreational fishing**. Sport Fish Restoration funds finance up to 75% of these projects. The state must finance the remaining 25% which is required in order to receive the matching federal funds. Boaters also benefit since 12.5% of the state's apportionment must be spent to develop and maintain boat use facilities.

So whenever you see this Sport Fish Restoration logo on a publication, at a Public Fishing Area, or anywhere else, remember that your purchase helps improve fishing opportunities for everyone.



LICENSES, RULES & REGULATIONS

'OPELU PROTECTED ZONE IN KONA

Do you know how important 'opelu fishing is to Kona? 'opelu ("mackerel scad") are at the bottom of the food chain. So maintaining healthy 'opelu schools helps keep bigger fish alive too, including 'ahi,

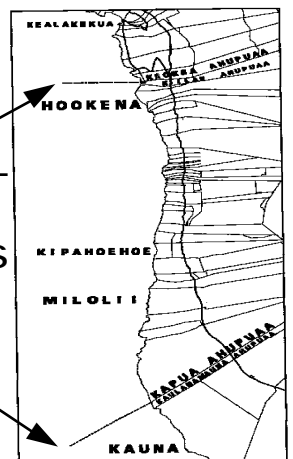


kawakawa, a'u, ono and uku. Even dolphins love to eat 'opelu!

'Opelu are an important food source for Hawaii's people, and protecting and caring for the 'opelu "koa" (sacred "fish houses") is part of a tradition unique to our beautiful state. Kona is home to the largest 'opelu fishery in Hawaii! That's why there is a special rule that protects 'opelu schools at South Kona and safeguards a fishing tradition that has been handed down through generations!

Since 1925, a zone was established along the Kona coast (HRS §188-46) from the border between Ki'ilaie and Keokea Ahupua'a (north of Lae Loa Point) all the way down south to the border between Kapu'a and Kaulanamauna Ahupua'a (north of Kauna Point). The protected zone is indicated by the dotted lines on the map. Within these boundaries, it is illegal to use palu ("chop chop" or "chum") containing any fish or animal matter (chopped fish, meat, blood or whatever). Only vegetable palu (taro, pumpkin, sweet potato, pear, etc.) can be used in this region. The use of palu containing fish or animal matter is not only against the law in this area, it is disruptive to 'opelu schools and draws predators in to regions where 'opelu come to grow and get ready for the spawning season.

SPECIAL RULES ARE TO PROTECT OPELU SCHOOLS IN THIS REGION

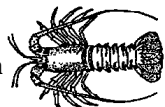


At the Department of Land and Natural Resources we believe Hawai'i is Earth's best! Please respect this rule and help us protect Kona's 'opelu fishery for future generations!

REMINDERS:

Spiny Lobster Season Slipper Lobster Season & Kona Crab Season

is now **open** as of September 1st and will run till April 31st. Remember that minimum size for home consumption or sale is as follows:



Spiny Lobsters	3 1/4 inches carapace length
Slipper Lobsters	2 3/4 inches tail width
Kona Crab	4 inches long or wide

Other restrictions include no spearing, no taking with eggs, animals must be taken whole only and cannot be taken mutilated.

Moi & Moi-li'i Season



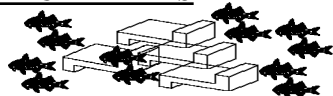
is now **open** as of September 1st and will run till May 31st. Remember that minimum size for home consumption or sale is 7 inches.

Mullet Season (for 'ama'ama or striped mullet) is **closed** between December to February. Open Season will resume on March 1st and run till November 30th.

Waikiki Diamond Head Fishery Management Area will be **open** to fishing from January 1, 1998 to December 31, 1998. The area will be closed to fishing from January 1, 1999 to December 31, 1999.

INSHORE PROJECTS

ARTIFICIAL REEFS



The Reefs Are Coming! That's Artificial Reefs! By the end of September approximately 2,000 "Z" or "N" shaped fish habitats will be barged and deployed at the Waianae Artificial Reef. In late July the first increment of nearly 450 habitats were added to the Reef between 65-70 feet depths.

HAWAII'S FIRST FISHERMEN'S FESTIVAL! - In case you missed the fun, the first "Hawaii Fishermen's Festival" was held at Waianae Harbor on June 15, 1997! The Festival lived up to all our hopes. We wanted it to be an event where anyone who fishes would feel

welcome, a fun and educational event for the whole family; yet we also strove to make it a place where fishers of all ages would focus their thoughts on sustaining the future of our fisheries.

This is exactly what happened. It was heart warming to see something so positive come out of the efforts of the whole fisheries community, with great support from the people in Waianae (mahalo nui!). The Festival was like a potluck of ideas, where everyone brings whatever they have to the table. What developed was a wonderful banquet, no single group could have prepared on their own. Everyone learned something and we all had a good time doing it! It was great to see the kids enjoying fishing games, while learning to throw the little ones back and take only what they need. This was perfect for Father's Day, and many of the keiki had Dad in tow; so families were learning together. Young and old enjoyed Sam Choy's poke contest; Mike Sakamoto's Fishing School; and booths representing Hawaii's diverse ethnic foods and fishing methods.

The Fishermens' Forum was another highlight of the Festival, a place for fishers from all walks of life to share ideas, listen to each other and recognize that the future of our fisheries relies on all of us working together. We shared experiences with young people from the University of Hawaii Marine Option Program; students aboard the voyaging canoes who told us how Alaska protects their fisheries; fisheries managers, kupuna and fishers from throughout the state. Men and women of all ages shared their ideas and listened intently to the message that came from everyone. Kupuna Valentine Ako, from Kapa'a, summed it up perfectly, "Unless we learn to respect each other and respect our fisheries, we can't ensure these fisheries will be here for our children's children".

We hope the Festival will mark the beginning of a closer relationship between fishers, researchers and managers. Several of the Forum groups agreed to continue working together throughout the year, including the "Kupuna Aha Kuka" (Council of Elders). If the ideas presented at the Festival are any indication, these discussions will yield valuable insights that will help us ensure a bright future for our fisheries! Festival Teeshirts with an original logo by

Les Hata are still available in the DLNR Visitor Center!



CURRENT LINE 2

FRESHWATER FISHING /PROJECTS

WAHIAWA RESERVOIR - WATER HYACINTH UPDATE!



The overgrowth of water hyacinths is being brought under control through extensive mechanical removal. With the use of modified boats and hand tools, all the major waterways have been cleared. However, the problem still persists along grassy areas, hard to reach shorelines, and small coves. DAR is presently trying to use Environmental Protection Agency (EPA) approved herbicides and physically removing the hyacinths to eradicate the remaining plants. However, this is a very slow process because of the extensive area that the hyacinths cover.

We would like to extend a BIG MAHALO to Chevron, BHP, and Smith Maritime for their combined donation of almost 2000 feet of oil booms. These are being used to corral the water hyacinths in certain areas to prevent them from spreading. Oil booms have been set up in areas of the North and South forks. In addition, sections of oil booms are being used to tow large sections of water hyacinths to shoreline areas where they can be safely and easily removed.

Again, we are asking you to please help us keep Wahaiwa Reservoir water hyacinth-free by removing these plants if you happen to be fishing in the area. Please remove any water hyacinths you see that are sprouting or drifting into these areas. By removing these plants from the water and placing them high on the exposed bank areas, these plants will dry up and die. This will help us tremendously with our efforts to bring this problem under control.

During hyacinth eradication, two other exotic plant species known as *water lettuce* and *Salvinia* were found. These were also removed because like the hyacinths, these could become a potential problem. These plants also have a rapid growth rate and a tendency to form very dense mats. Please *kokua* by not releasing any exotic plant or animal into the Reservoir or other streams. These plants or animals can create problems as you can see with the water hyacinth. For this reason, it is against the law to release any non-native plant or animal into the wild. Accidentally introduced fish such as the armored catfish, red devil, and the 5-spot jewel cichlid are now all problems in the Reservoir.

Fishing at the Reservoir has been good this summer. Sport fishermen have been catching large tucunare, pongee, and largemouth bass. Most of these were released back into the Reservoir by fishermen practicing catch and release methods which help to preserve and improve the quality of fishing in Hawaii. Lots of oscar, carp, and bluegill have also been seen. So, grab your pole, a personal flotation device, and a current Freshwater Game Fishing License for some fun! It's also a good idea to pick up a current copy of the Hawaii Fishing Regulations (available at fishing supply stores that are also licensing agents) before going fishing. Happy Fishing!

1997 KOKEE TROUT OPENING

The first day of trout fishing at Puulua Reservoir on Kauai was on Saturday, August 2, 1997. The following is information for the opening day ONLY:

	Aug. 2, 1997
# of anglers	735
# of fish	3,329 trout

Fishing will continue till the last weekend in September. We will have an update on the totals of anglers and fish in the next *Current Line* issue.

OFFSHORE PROJECTS

FADS - FADs were replaced around Oahu during the month of June. The deployment and maintenance cruise for Maui and Hawaii counties is tentatively scheduled for October 1997. Here is the most recent update of missing FADs and replaced FADs:

MISSING FADs (as of Sept. 1997):

FAD	Location	Island
E	Leleiwi	Hawai'i
QQ	Makuu	Hawai'i
UU	Auau Pt.	Hawai'i
MC	Palaoa	Lana'i
LA	Lahaina	Maui
HO	Hoolawa Pt.	Maui
JJ	Kamohio	Kaho'olawe
EK	Hanalei	Kaua'i
Z	Kipukai	Kaua'i
WK	Wailua	Kaua'i
DK	Anahola	Kaua'i

REPLACED FADs (as of Sept. 1997)

FAD	Location	Island
U	Kaneohe	O'ahu
J	Haleiwa	O'ahu
CO	Kaena Pt.	O'ahu
R	Makaha	O'ahu

For current locations and/or more information, contact Warren Cortez at 848-

2939. Also, if you know of any FADs that broke loose, see any light out or have any other comments, please give Warren a call.

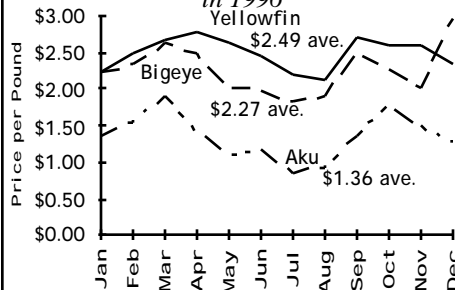
COMMERCIAL FISHERIES STATISTICS

MARKET TRENDS - Much of the State's commercial fishing industry is driven by a handful of important species from different fisheries. The average wholesale price (per pound) trends of certain species for several fisheries for 1996 are reviewed. All price data used for the following tables are derived from commercial fish catch reports only. Figures are compiled by the DAR Statistical Unit. Summaries are based on Calendar Year 1996.

Pelagic Fisheries - The most important fishery in the State, pelagic fish account for about 90% of the landings in terms of pounds landed and ex-vessel value. Tunas, billfish, swordfish, mahimahi, and ono are commonly caught by longline, troll, tuna handline and live-bait tuna boat fishing methods.

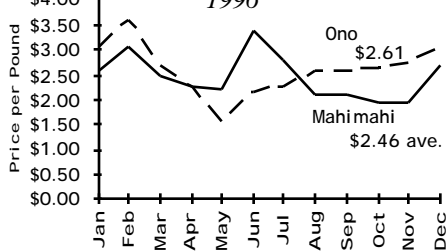
Tunas - Of the tunas, the highest average prices are for yellowfin and bigeye ahi. Prices peak during fall and winter periods (Oct. through Mar.) when there is high consumer demand. Those caught by longline demand the highest prices due to quality and larger fish being caught. Aku prices were higher in the fall and winter periods, with lower prices from longline catches due to a lack of quality and being only a bycatch.

Average Prices of Selected Tuna Species in 1996



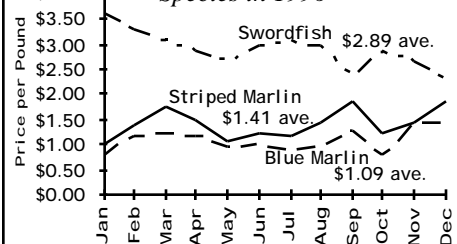
Mahimahi & Ono - Average prices for mahimahi caught by troll and handline were relatively flat last year. Both ono and mahimahi are longline bycatches and do not retain quality due to trip length, hence, average prices are lower than troll and handline catches.

Average Prices of Mahimahi & Ono in 1996



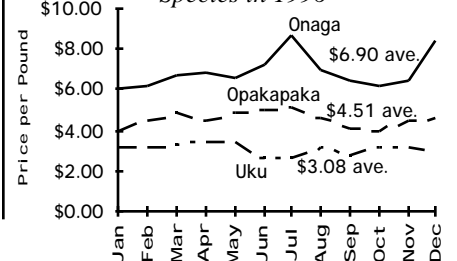
Bill fish & Swordfish - Blue marlin and spearfish average prices generally remained stable throughout the year regardless of method caught. Striped marlin, which has the best sashimi quality among billfish, attained higher prices and is most expensive during December. During the 1990's, swordfish became a target catch for longliners. Most of this catch is exported to mainland markets and average prices are about two to three times that of other billfishes.

Average Prices of Selected Billfish Species in 1996



Bottomfish Fisheries - Recently, bottomfish has become the State's main fisheries management issue. Although less than 3% of the State's total landings are bottomfish, the fisheries in the Main Hawaiian Islands (MHI) include several species which are overfished, such as the onaga and ehui. The average annual prices for bottomfish caught from the MHI are generally higher than those caught from the Northwestern Hawaiian Islands (NWHI). This is attributed to the freshness of the fish (it's a shorter fishing trip within the MHI) and, especially for snappers, the smaller size is ideal for household consumption. Most MHI snapper prices were stable last year. The prized onaga experienced premium prices in December when it is in demand for the holiday season.

Average Prices of Selected Bottomfish Species in 1996



FISH FACTS



Pristipomoides filamentosus
(Pink Snapper, 'Opakapaka)

SIZES

Length: large specimens will reach a length of at least 3 feet

Weight: up to about 18 pounds

BREEDING

Sexual Maturity: females generally reach spawning condition at a fork length of 19.2 inches. Opakapaka reach sexual maturity at about 1.8 years and generally spawn at about 2.2 years.

Spawning: spawning season is from June through November, with spawning peaks in August.

LIFESTYLE

Habitat: deeper offshore water beyond the reef. Occurs over rocky bottoms; usually caught between 40 to 120 fathoms. There seems to be a relationship between size of fish and depth during

daylight hours. Fish apparently migrate into shallower depths at night.

Diet: Diurnal and nocturnal, feeds on small fishes, squids, shrimps, crabs, sea cucumbers and zooplankton

Life Span: maximum known age 18 yrs.

Distribution: Indopacific: from East Africa to Hawaii and Tahiti, and northward from eastern Australia and Lord Howe Island to southern Japan.

RELATED SPECIES

The opakapaka is a member of the Snapper Fish Family which includes other commercially important species such as onaga and ehu. Collectively known as Bottomfish, these important food fish are captured by deep sea handline.

The following table will give you an idea of how fast these fish grow and how old

they are. Please note that these are just ball park figures and meant only to give you a general idea on the relationship of length, weight, and age.

Length, Weight and Age of Opakapaka

Fork Length (inches)	Weight (pounds)	Age (years)
6		0.5
9.5	0.7	1
12.5	1.5	1.4
15	2.25	1.6
18.3	4	2
20	5	2.5
27	11.25	3
29	14	3.25

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